

### **REMARKS**

Prior to the instant response, claims 35, 40-41, 43, 53-64, 66, and 68-72 were pending in the application. By amendment herein, claims 35, 40-41, 54-55, 66, and 68-72, have been amended, claims 43, 53, 56-63 have been cancelled, and new claims 73-80 has been added. Thus, claims 35, 40-41, 54-55, 64, 66, and 68-80 are now pending. A detailed chart illustrating the support for the new and amended claims is provided near the end of this response.

#### **I. Claim Rejections - 35 U.S.C. § 112**

In the Office Action, claims 40 and 41 were rejected as depending from a cancelled claim. Claims 40 and 41 have been amended to properly depend from a pending claim.

#### **II. Claim Rejections Under 35 U.S.C. 103(a)**

Previously pending independent claim 35 was rejected by the Examiner. For the record, the undersigned respectfully disagrees with many of the reasons that independent claim 35 was rejected. For example, the undersigned respectfully disagrees that the combination of Eggensperger and Ofusu-Asante would have resulted in the claimed invention of previously pending claim 35. The undersigned also disagrees that the Eggensperger reference was mischaracterized, and that the examiner does not need to establish a prima facie case of evidence with a factual supporting, as relating to claim 64.

Nonetheless, to expedite prosecution, and out of an abundance of caution, independent claim 35 has been amended to recite a cleaning solution that consists essentially of the following ingredients:

- (a) at least one long chain alkyl polyamine of the formula:



wherein R is a linear or branched alkyl amine chain comprising 10 to 14 carbon atoms;

- (b) at least one aliphatic alcohol;  
(c) iodine;

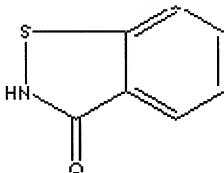
(d) at least one amphoteric surfactant; and

(e) at least one antioxidant.

This claimed solution, by definition, excludes the use of the BIT component of the Eggensperger reference.

a. BIT is not a long chain alkyl polyamine, an aliphatic alcohol, iodine, an amphoteric surfactant or an antioxidant.

BIT, also known as 1,2-benzisothiazoline-3-one, has the chemical formula of:



According to Eggensperger BIT is "known as [an] anti-microbially active substance and is used as preservative in technical applications or, in general, as an additive which is suitable to counteract material destruction ("Mikromatz", in german) caused by microbes." Eggensperger, Col. 1, lines 13-18. Furthermore, according to Dermacom,<sup>1</sup> known uses of BIT include:

- Adhesive paper
- Anti-adhesive agents
- Binders
- Cleaning agents
- Construction materials
- Curing agents
- Fabric softeners
- Paint
- Pesticides

<sup>1</sup> <http://www.dermacom.ch/private/alindex/BE000.htm>; cited in IDS filed herewith.

- Pigments
- Plasticizers
- Polishes
- Preservative in cooling fluids
- Proxel CRL (1,2-Benzisothiazolin-3-one + ethylenediamine)
- Shampoos
- Shoes (heel and toe counters)
- Surfactants
- Textiles

BIT is not a long chain alkyl polyamine of the formula  $H_2N(CH_2)_3-NR-(CH_2)_3NH_2$ , wherein R is a linear or branched alkyl amine chain comprising 10 to 14 carbon atoms, so BIT does not fall into category (a) of claim 35. BIT is also not any of an aliphatic alcohol, iodine, or an amphoteric surfactant, so BIT does not fall into any of category (b), (c), or (d) of claim 35. BIT is also not an antioxidant. Indeed, according to U.S. Patent No. 5,373,016, BIT should be stabilized from free radical scavengers via the use of antioxidants (*see*, Abstract, Col. 4, lines 66-67; Cols. 5-8, Examples). Therefore, BIT is not an antioxidant, and does not fall into category (e) of claim 35.

Since BIT does not fall into any of the categories (a)-(e) of claim 35, and since claim 35 is a closed claim, the present claims exclude the use of BIT.

b. One of ordinary skill in the art would not have removed BIT from the Eggersperger composition because BIT is a critical component of that composition

The primary reference used to reject the claims, Eggersperger, requires the use of BIT. Indeed, Eggersperger considers the use of BIT in combination with amines to be the "heart" of his invention:

- "The invention relates to a liquid preparation containing 1,2-benzisothiazoline-3-one (BIT) and amines . . ." (Abstract)
- "The present invention provides a liquid preparation of 1,2-benzisothiazoline-3-one (BIT) and amines, and optionally with a content of additional solvents and common additives . . ." Col. 1, lines 39-44

- "The invention provides new liquid preparations of BIT and amines which are stable on storage and exhibit a surprising synergistic effect against microbial destruction in technical applications, particularly in technical products, which contain water or can be diluted with water."
- "The synergistic effectiveness increase achieved with the inventive preparations is obvious from the results of a serial dilution test which was performed with a preparation of the invention and compared with the effectiveness individual substances of that same preparation." Col. 4, lines 15-19.

There is no disclosure by Eggersperger that effective cleaning solutions could be achieved without the use of BIT. Furthermore, there is no suggestion to produce the cleaning solutions of Eggersperger without BIT, since excluding BIT would kill the "synergistic effect" of those cleaning solution. In other words, there is not suggestion to remove the critical component (BIT) of Eggersperger, because removing BIT would make those cleaning solutions unsatisfactory for their intended purpose. *See*, MPEP 2143.01(V):

"If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)."

In other words, Eggersperger teaches away from any solutions that do not contain BIT:

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant . . . [or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant . . . If when combined, the references "would produce a seemingly inoperative device," then they teach away from their combination." *Tec Air, Inc. v. Denso Mfg. Mich., Inc.*, 192 F.3d 1353, 1359 (Fed. Cir. 1999).

Therefore, the presently claimed cleaning solutions, which exclude the use of BIT, are not obvious in view of Eggersperger, and are thus patentable.

**III. Entry of Amendments to the Specification submitted with Preliminary Amendment of November 14, 2005**

The undersigned notes that the *Amendments to the Specification* submitted with the Preliminary Amendment of November 14, 2005, were not reflected in the publication of this U.S. Patent Application (i.e., publication no. 2006/ 0286135). It is respectfully requested that those amendments be entered into the record and reflected in any issued patent derived from the present application.

**Claim Support and Claim Fees**

As noted above, one or more claims have been amended and/or one or more new claims have been added. Support for these claims, may be found at, for example:

<b><u>Claim / Limitation</u></b>	<b><u>Support in Specification</u></b>
35. A cleaning solution consisting essentially of:	PARA. 0008, 0035
(a) at least one long chain alkyl polyamine of the formula: $H_2N(CH_2)_3-NR-(CH_2)_3NH_2$ wherein R is a linear or branched alkyl amine chain comprising 10 to 14 carbon atoms;	PARA. 0008, 0017; FIG. 2
(b) at least one aliphatic alcohol;	PARA. 0008, 0021
(c) iodine;	PARA. 0008, 0024
(d) at least one amphoteric surfactant; and	PARA. 0028
(e) at least one antioxidant.	PARA. 0043
73. The solution of claim 35, wherein R = C <sub>12</sub>	FIG. 2
74. The solution of claim 73, wherein the at least one aliphatic alcohol is selected from the group consisting of ethanol and n-propanol.	PARA. 0022
75. The solution of claim 74, wherein the solution contains 10 - 30 vol. % of the at least one aliphatic alcohol.	PARA. 0023
76. The solution of claim 75, wherein solution includes up to about 0.5 wt. % iodine.	PARA. 0025
77. The solution of claim 76, wherein the solution further includes at least one	PARA. 0029

<u><b>Claim / Limitation</b></u>	<u><b>Support in Specification</b></u>
wetting agent.	
78. The solution of claim 77, wherein the at least one the wetting agent is selected from the group consisting of polyglycol ether, a polyethylene glycol ether, and a polypropylene glycol ether.	PARA. 0029
79. The solution of claim 76, further containing at least one of: (i) a complexing agent, wherein the complexing agent is adapted to form a complex with the iodine, and; (ii) a buffering agent.	PARA. 0026, 0027
80. The solution of claim 78, further containing at least one of: (i) a complexing agent, wherein the complexing agent is adapted to form a complex with the iodine, and; (ii) a buffering agent.	PARA. 0026, 0027
END OF CHART	

Any necessary additional claim fees are calculated below.

For	Claims Remaining After Amendment	Highest Number Previously Paid For		Extra Claims	Rate		Additional Fee
Total Claims	20	- 33	=	0	x \$26	=	\$0
Independent Claims	1	- 8	=	0	x \$110	=	\$0
Multiple Dep. Claim	0	- 0	\$195			=	\$0
Total Fee						=	\$0

#### IV. Conclusion

Having responded to all rejections set forth in the outstanding Office Action, it is submitted that pending claims 35, 40-41, 54-55, 59-64, 66, and 68-77 are in condition for allowance, and Notice to that effect is respectfully solicited.

Respectfully submitted,

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